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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,583	01/31/2002	Rajinder Nath Vohra	US 1317/02	1957

7590 11/20/2003

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EXAMINER

NGUYEN, NGOC YEN M

ART UNIT

PAPER NUMBER

1754

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

### Office Action Summary

**Application No.**

10/062,583

**Applicant(s)**

VOHRA ET AL.

**Examiner**

Ngoc-Yen M. Nguyen

**Art Unit**

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### DETAILED ACTION

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, in the preamble, the process is for a) recovery of low sodium salt, b) preparing free flowing low-sodium salt, c) preparing iodized low sodium salt, d) with enhanced recovery of low sodium salt from bittern, however, in the body of the claim, there is no positive process step to achieve b), c) or d).

In claim 1, it is also unclear what is required by "economical", "enhanced recovery".

In claim 1, step c), it appears that the evaporating of this step must be stop at a certain concentration (e.g., density of 30 to 33° Bé, note instant specification, page 4, middle of page), because if the evaporation is carried until the density reaches 35.5° Bé, carnallite will be precipitated in step c) and removed in step d) and there would be no carnallite left to be precipitated in step e).

In step c), it is unclear what is regarded as "excess salt".

In step e), it is unclear if the solar evaporation is carried until solid deposition is initiated (i.e., just begin) then stop, or is it carried out until most or all of carnallite has been precipitated.

In step f), there is no clear antecedent basis for "end bittern".

In step g), it is unclear what is required by "desired sodium salt", is it the same as the "low-sodium salt"? It is also unclear if "this solid" refers back to "sodium salt", and if the solid "containing" magnesium chloride or the liquid "containing" mainly magnesium chloride.

In claim 4, there is no antecedent basis for "the bittern of step (h)". Also, it is unclear the bittern of step (h) is recycled to what step. It is suggested that "can be enhanced" be changed to "is enhanced".

In claim 5, it is unclear what is required by "can be produced *directly* from 29-30° Bé bittern", does "directly" means that the bittern of step a) has such density?

In claim 11, it is suggested that "can be" be changed to "is".

In claim 14, "steps (a to h)" should be changed to "steps (a) to (h)".

In claim 15, there is no antecedent basis for "step (j)", for "the additive".

In claim 16, there is no antecedent basis for "step (k), for "the alkali salt".

In claim 17, there is no antecedent basis for "step (l)", "the supernatant liquor of step (h)", "crude carnallite".

In claim 18, it is unclear if the calcium and magnesium are required to be present in the low sodium salt.

In claim 19, it is unclear what is required by "isolated yield".

In claim 20, there is antecedent basis for "adopting recycling process" in claim 1.

Claims 1-20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach or disclose a process for producing low sodium salt by treating a bittern to first removing calcium sulfate, evaporating the resulting bittern to remove salt, further evaporating the bitter to form a mixture of sodium chloride and carnallite and treating the mixture with water to form low sodium salt.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (703) 308-2536. The examiner is currently on Part time schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (703) 308-3837. The fax phone

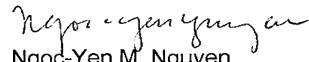
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number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Ngoc-Yen M. Nguyen  
Primary Examiner  
Art Unit 1754

nmn  
11/17/03